

Welcome to Montana State Universities' Extension  
Service 2000 Annual Report of Accomplishments  
and Results

## Introduction

*“No single element distinguishes the land-grant university so much as the commitment to take its expertise and its programs to the far corners of the state. It is the objective of Montana State University, through the now combined activities of its four campuses and service arms, to expand the mission of the Extension Service to serve as a conduit to the educational needs of the state’s citizens with an increased variety of programming initiatives.”*

MSU Report to Board of Regents  
January 28, 1999

The above statement provides a clear direction for the Extension Service in Montana for the next three to five years. The basic mission remains the same: to disseminate and encourage the application of research-generated knowledge to individuals, families and communities in order to improve agriculture, forestry, and other businesses, and strengthen Montana’s families and communities. What is different is the commitment to utilize all appropriate educational and research resources in Montana and the region through the Extension network to meet the educational needs of Montanans.

This new direction is underscored by expanded partnerships with MSU-Bozeman colleges, MSU-Northern, MSU-Billings, the MSU College of Technology, Rocky Mountain College, the seven Montana tribal colleges, the University of Montana, and other state, federal, and private institutions in Montana and the Rocky Mountain Region. The location of Extension specialists off of the Bozeman campus is being explored along with the development of regional field faculty positions.

A current example of innovative, futuristic partnerships is the Montana Beef Network project that involves both the Montana Stockgrowers Association and the MSU Extension Service. Other examples of creative approaches to citizen education are the involvement of 4-H with the Governors’ Youth Summit; the role of Extension in development activities in the Anaconda community; food safety education; and MSU Extension’s small landowner program. All five of these efforts are national models of cutting-edge Extension programming.

This report addresses many of the challenges for the MSU Extension Service in the next three to five years involved with the primary concerns and needs of Montanans. The focus areas include agricultural sustainability and profitability, family issues, youth development, economic development, growth management, and natural resources and the environment.

The goal overviews and the key theme statements identify the efforts and accomplishments as outlined in our five year plan. A notable effort centered on the partnership between Montana Extension and researchers at MSU. An Extension/research project on the benefits of 4-H resulted in the return of 2,500 surveys from 60 schools. The data was analyzed by research faculty and indicates that Montana 4-H youth are busy making positive contributions to improve the quality of life in their families, neighborhoods and communities. Details are included under goal 5.



2/28/01

David A. Bryant  
Vice Provost and Director

Date



## **Goal 1: An Agricultural System that is Highly Competitive in the Global Economy**

### **Overview:**

- Montana Farms and Ranches will sustain profitability and maintain land stewardship at a level that provides continued production and a desirable quality of life.. To address this concern, the Extension Service in Montana has implemented the following programs; Beef Quality Assurance, PIA, Water Quality Monitoring, Forest Stewardship, Montana Beef University, Weed Control, Sheep Production, Swine Production, WIRE, Field Trials, Prescribed Livestock Grazing, Private land Wildlife Management, IPM, and Endangered Species Education.
- Nine hundred twenty-three field faculty days were devoted to developing, implementing and evaluating these programs. Eight FTE of Specialist time was devoted to this goal. Faculty are on a combination of Federal Smith/Lever 3b&c, State and County funding sources. A total of 12,792 people attended, 8,734 indicated an aspiration to put their new knowledge into practice and 5,665 actually adopted practice.
- The Agricultural information system is being studied with specific implementation decisions pending further study.
- The Beef Quality assurance program certified 38,000 calves. Calves were tracked through the market and sale price for certified calves was compared to non certified calves and a \$2.00 per hundred weight advantage was observed for Certified calves. Assuming an average weight of 600, this would be a \$456,000. benefit to 391 cow/calf producers or a \$1,166.24 average net profit increase to each producer that was certified. The additional profits to the feeders who will slaughter these animals was not estimated but would be substantial.
- Four hundred seventy-six private pesticide applicators were reported as receiving certification credits.
- Eighty-three individuals have adopted water quality monitoring practices.
- Sixty-six private forest owners participated in one of five forest stewardship workshops. Each participant developed a 10 year stewardship plan for their forest property. Fifty-nine participants agreed to have their plans certified with a visit to the property by one of the trained stewardship advisors. Those 59 stewardship plans represent 7,245 acres of forest in Montana.
- The Montana Beef University was conducted in 12 location around the state with 10 of those locations being remote sites accessed via

interactive video presentations with 835 people participating and .400 adopting practices.

- The Noxious Weed Seed Free Hay program is delivered in 10 counties with 12,000 tons of hay being certified. Growers receive about \$15.00 per ton premium thus realizing a \$180,000 return in additional income.
- Three hundred twenty-five sheep producers were involved in sheep and wool production and marketing programs with 215 producers adopting new recommended production and marketing practices. Many of the smaller producers are involved in wool marketing pools where they receive the advantage of volume marketing where the buyer can offer a better price for a car load or a semi load of wool.
- One thousand nine hundred sixteen producers participated in IPM programs related to insect, weed and disease control measures. Five hundred twelve producers implemented new practices in controlling and managing pests.
- Three hundred sixty individuals participated in Wild Life Management and Endangered Species programs and 106 adopted practices.
- Impact of the FY 00 swine program has been that 850 adults and youth involved in producing pigs have gained information that enables them to efficiently produce quality hogs as indicated by participant survey rating (4.6/5.0) and carcass improvement (2.4% less fat, 4.5% larger loin area, 1.4% more carcass lean) from the previous year.
- The State's assessment is that we have made good progress towards our five year goals in most areas and exceeded expectations in some areas. We have made an excellent impact in our first year of the new thrust Beef Quality Assurance program. Stakeholder input was a key factor in the identification of this new thrust.
- We have not made as much progress as we had hoped for in the development of a state-of-the-art Agricultural Information Network.

Goal 1:

**Key Theme: Ag Profitability in Disaster Areas**

**Brief Description:**

Montana producers faced many challenges during 2000, one of which was severe drought and fires. The extent of the drought and fires in Montana lead to most of the state being declared a Presidential Disaster area. Many livestock producers were forced to sell excess numbers of livestock due to lack of forage and water. Tax laws allow special treatment of revenue generated from the sale of excess numbers of livestock. However, within a Presidentially Declared Disaster area, additional options are available for tax treatment of "involuntary conversion revenue" which is very favorable to taxpayers. We issued several news releases and put information on the Extension Web site to alert producers, accountants and other tax preparers to the additional options available with Presidential Disaster status.

**Impact/Accomplishments:**

This information was widely used by farmers, ranchers and CPAs in Montana. While it is difficult to tell what the total impact was, conversations with CPAs indicated that, in just individual tax returns alone, over \$800,000 of "involuntary conversion revenue" became tax free under these special conditions.

**Source of Funding:**

State

**Scope of Impact:**

State specific

Goal 1:

## **Key Theme: Ag Profitability-Accounting Workshops**

### **Brief Description:**

Agricultural producers must have considerable expertise in three major areas, production agriculture, financial management and marketing. The background and education of producers is in production agriculture. To aid producers with financial management, one-day, hands on accounting workshops were conducted around the state of Montana. Three different formats were presented. The first was an introductory accounting workshop titled "Beginning Quicken" which focused on the basics of income and expense record keeping and some of the basic mechanics of using Quicken for tax accounting. The second workshop emphasized record keeping for management purposes. This workshop was titled "Advance Quicken." The third workshop was titled "Quickbooks for Beginners" and used the Quickbooks program rather than Quicken.

### **Impact/Accomplishments:**

Nine of these workshops were held in various locations with approximately 150 people attending these hands on sessions. Evaluations for these workshops were 4.5 or greater on a 5.0 scale.

### **Source of Funding:**

Smith-Lever 3b&c  
State  
Local

### **Scope of Impact:**

State specific

Goal 1:

**Key Theme: Ag Profitability-Marketing**

**Brief Description:**

Agricultural producers must have considerable expertise in three major areas, production agriculture, financial management and marketing. The background and education of producers is in production agriculture. To aid producers with marketing grains and livestock, several workshops were conducted around the state of Montana. There were several formats for these workshops. Short, 3 to 4 hours, workshops were conducted on specific topics within the marketing area. Longer, 6 to 7 hours, workshops were conducted that covered the basics of marketing and the mechanics of using futures and options for risk management. Intensive workshops, 14 to 16 hours, were also conducted which provided detailed hands-on examples with emphasis on implementation of marketing strategies and risk management.

**Impact/Accomplishments:**

Seven of these workshops were held throughout Montana with approximately 200 producers attending. Evaluations on these workshops were 4.25 and higher on a 5 point scale. Participants in these workshops indicated, in later conversation, that they had adopted some of the marketing principles and strategies presented during the workshops. Several participants also sought out existing marketing clubs to join or formed there own marketing clubs.

**Source of Funding:**

Smith-Lever 3b&c  
State  
Local

**Scope of Impact:**

State specific

Goal 1:

## **Key Theme: Beef Quality Assurance**

### **Brief Description:**

The Montana Beef Network has three primary objectives; 1) educational programs aimed at meeting beef quality assurance (BQA) standards, production and marketing goals and providing additional educational programs through interactive-video conferencing; 2) certification of feeder calves that have met defined health management protocols; and 3) information feedback from the feedlot and packing plant to the cow-calf producer showing if the feeder calves met industry requirements for quality, consistency, safety and red meat yield.

### **Impact/Accomplishments:**

Funding was used to develop, publish (1,500 training manuals) and present over 45 Beef Quality Assurance educational programs in Montana so producers could certify that calves were vaccinated using a standard health management protocol. County agents were trained to provide this educational program to producers at the county level. Approximately 38,000 calves were certified in 1999 and 2000. Additional projects started were 1) initiation of a state-wide audit of ranchers to determine value-added practices related to breeding, health management, nutrition and marketing; 2) a twelve ranch research project was completed to determine if a standardized weaning protocol which includes both vaccinations and nutrition could reduce morbidity of calves once they entered the feedlot. Standardized management appears to have reduced sickness of calves once they entered the feedlot; 3) one-day short courses have been held in Lewistown and Billings in which issues pertinent to the beef industry were presented; 4) breeding project for red meat yield vs quality grade; and 5) ten interactive-television short courses aimed at carcass evaluation, genetic management, backgrounding calves, nutrition, drought management and marketing were presented during 2000.

### **Source of Funding:**

Smith Lever 3b&c  
State  
Local  
Grant

### **Scope of Impact:**

State specific

Goal 1:

## **Key Theme: Forest Stewardship Workshops**

### **Brief Description:**

Five Forest Stewardship workshops were offered this year in Helena-May, Kalispell-June, Yellow Bay-August, Missoula-September and Deer Lodge-October. These five-day workshops were designed to educate non-industrial private forest landowners on how to establish and maintain a healthy forest ecosystem consistent with their private and social values on a sustainable basis.

### **Impact/Accomplishments:**

Participants develop a 10 year Stewardship Plan for their forest property. All 66 ownerships represented in the five workshops developed plans for their property. Fifty-nine participants agreed to have their plans certified with a visit to their property by one of our specially-trained Stewardship Advisors. Those 59 Stewardship Plans represent 7,245 acres of forest in Montana.

### **Source of Funding:**

Smith Lever 3b&c  
Federal 3D  
State  
Local

### **Scope of Impact:**

Statewide with major focus in Western Montana

Goal 1:

## **Key Theme: Extension Forestry Mini-College**

### **Brief Description:**

Over its 10 years, the program has attracted more than 1900 private nonindustrial forest landowners, who spend a Saturday at the University of Montana Campus. This year's program offered 10 different topics from which a participant could choose 5. The sessions are 70 minutes in length and the program occupies three campus buildings. The goal of the program is to offer a wide range of speakers and topics in an abbreviated format. From this experience, we hope participants will be motivated to attend our in-depth workshop offerings.

The topics: Living with Forest Predators, Forest Owls and Their Ecology and Developing a Habitat Conservation Plan for Fish helped forest landowners realize their social responsibility to both neighbors and community. The topic of Forest Road Reconstruction and Maintenance emphasized the tradeoffs of forest roads. While roads generate an environmental impact on stream sediment, they are crucial to the success of wildfire and insect and disease control. Regular road maintenance is necessary to reduce their environmental impact. The topics: Should Your Forest Property be a Business and Legal Issues For Forest Property Owners drew attention to the economic aspects of forest ownership.

### **Impact/Accomplishments:**

Over its 10 years, the program has attracted more than 1900 private non-industrial forest landowners.

### **Source of Funding:**

Federal 3D

### **Scope of Impact:**

State specific

## Goal 1

### **Key Theme: Plant Production Efficiency/Cropping Systems**

#### **Brief Description:**

Extension specialist has developed and routinely updates an extensive agriculture resource information base which is globally accessible and electronically disseminated to approximately 63,000 subscribers weekly. Primary focus of the information service is enhanced agricultural crop production efficiency. Agronomy Notes (a legally registered copyright/ trademark of Montana State University, located at

<http://agronomy.org>) currently consists of 300 technically based agricultural crop production fact sheets, indexed, updated weekly, categorized and publicly accessible. Information from the fact sheet series is used to support and enhance a 3-hour county-based cropping systems training program, which is conducted in approximately 20 counties per year.

In addition, the specialist coordinates the irrigation water management education programs of seven irrigation districts within the Upper Missouri Basin. The programs consist of an off-season education seminar series and irrigator newsletter and a weekly electronic posting of irrigation water requirements. Approximately 1200 irrigators participate annually in the program. Cooperating agencies and institutions: Montana Agricultural Experiment Station research faculty, U.S. Bureau of Reclamation, USDA

Natural Resources Conservation Service, U.S. Bureau of Indian Affairs, USDA Farm Service Agency, members of the Montana Agribusiness Association.

#### **Impact/Accomplishments:**

More than 63,000 agri-producers, agency personnel, educators, and agri-business are provided educational information fact sheets addressing timely issues of agricultural crop production efficiency weekly; approximately 1200 irrigators, representing 7 Bureau of Reclamation irrigation districts, receive weekly updates and reports on irrigation water scheduling during the irrigation season. Overall program evaluation by recipients of Agronomy Notes is "good to excellent"; more than 70% of participants of irrigation scheduling services report the service has "enhanced their ability to schedule timely irrigations."

#### **Source of Funding:**

Specialist Salary (~35% FTE to this program) State

Other funding sources - U.S. Bureau of Reclamation

- USDA Natural Resources and Conservation Service

#### **Scope of Impact:**

Generally statewide, but primarily focused on agricultural production areas within Montana east of the Continental Divide; both dryland and irrigated crop production. Due to nature of educational activities, impacts extend throughout the United States, Canada, Africa, Australia.

## Goal 2: A Safe and Secure Food and Fiber System

### Overview:

- Providing a safe and secure food system is a serious concern in Montana. To address this concern, the Extension Service in Montana has implemented several program strategies.
- The first strategy is to work cooperatively with the Montana Department of Health and the food industry to implement the nationally recognized “ServSafe” program. 23 faculty spent a combined total of 323 faculty days in planning implementing and evaluating the ServSafe programs in 19 Montana counties and on 6 Indian Reservations. 3,274 individuals participated in training with 2,790 individuals adopting food safety practice.
- Another strategy was the level II HACCP statewide train the trainer program. The state training group, comprised of representatives from Montana Department of Livestock, Montana Department of Health and Human Services and the Extension Service, has primarily focused on the next phase of HACCP training: “Managing Food Safety Retail HACCP Program.” The first of this series will be offered in March of 2001.
- Strategies have been developed to reach limited resource audiences. These include the FSNEP ( Food Stamp Nutrition Education Program), the EFNEP (Expanded Food and Nutrition Education Program) and the EDUFAIM (Educating Families to Achieve Independence in Montana).
  - FSNEP 365 faculty days were devoted by paraprofessionals in 31 communities in the delivery of educational programs with 13,048 participants of which 11,743 adopted practices of improved food skills. 81% of the youth that participated improved their practices in food preparation and food safety.
  - EFNEP 319 families participated in the adult EFNEP program, and over 92% of them improved their diets. 3,303 youth between the ages of 6 and 15 participated and most showed improved food safety, and food choices. A national study showed that for every dollar invested, \$10.64 was returned in benefits from reduced health care costs.
  - EDUFAIM 473 at-risk families attained progress in effective family resource management and self-sufficiency. See key theme overview for details.

Goal 2:

## **Key Theme: Educating Families to Achieve Independence in Montana**

### **Brief Description:**

Families coming off welfare often need self-sufficiency skills that can be provided through education. Working in partnership with the Montana department of Public Health and Human Services, Montana Extension developed EDUFAIM: Educating Families to Achieve Independence in Montana. The objective of EDUFAIM is to help FAIM and other at-risk families gain the knowledge, attitudes, and skills to attain effective family resource management and self-sufficiency. The project vision: Supporting Montana communities that empower families to develop skills, knowledge and competence necessary for managing family resources and progressing toward a self-supporting lifestyle.

EDUFAIM program areas may include, but are not limited to, nutrition and health, individual and family development, resource management, community development and housing. Specific educational program content is determined by the needs identified and prioritized by individual families and communities.

### **Impact/Accomplishments:**

The results of the 1999-2000 EDUFAIM program show 473 participants with 473 people actually adopting practices learned there. The results of the 1999-2000 EDUFAIM survey had the highest pre (entrance) and post (3 month) survey completion rate (54%) since the evaluation protocol was implemented. The results of the empowerment evaluation showed that changes were taking place in areas that are associated with empowerment to seek employment. Specifically, the measures that showed changes in a favorable direction included job availability, political efficacy, external locus of control, job seeking efficacy, job seeking behaviors and job seeking efforts. There was an increase in the percentage of clients who understood job searching, positive employee characteristics in the workplace and techniques for dealing with stress. The overall trend of seeing positive changes in reported behaviors, knowledge and attitudes was consistent across the vast majority of the class evaluation. The most profound outcome of the analysis was the personal growth that occurred in the clients' lives as a result of the EDUFAIM program. The depth and regularity of the statements which describe significant interpersonal changes (transformation) and personal growth showed that the program was making a real and important difference in many of the clients' lives.

### **Source of Funding:**

Grant

### **Scope of Impact:**

State specific

Goal 2:

**Key Theme: EFNEP**

**Brief Description:**

Extension professionals train and supervise paraprofessionals and volunteers who teach basic nutrition and food skills to limited resource families and youth via one-on-one home visits and/or group classes through an in-depth series of lessons. EFNEP works to achieve lasting improvements for families while promoting immediate changes in food habits. In the last year, Montana EFNEP is operating in four counties encompassing parts of three reservations: Big Horn, Blaine/Fort Belknap, Missoula, and Yellowstone.

**Impact/Accomplishments:**

In the adult program, over 92% of the participants improved their diets, in one or more areas of the Food Guide Pyramid. Utilizing the Behavior Checklist Survey, 77% of the adults who completed the program improved in one or more food resource management practices; 87% improved in one or more nutrition practices with their families; and 53% improved one or more food safety practices.

**Source of funding:**

Federal 3D  
Other grants

**Scope of impact:**

Five other rural states in collaboration

Goal 2:

**Key Theme: FSNEP**

**Brief Description:**

Montana FSNEP (Food Stamp Nutrition Education Program) provides educational programs for food stamp households or those eligible. In 31 counties, paraprofessionals provide a series of lessons or single demonstrations with practical information and skill building tips for choosing better foods, food handling, food storage and food safety practices.

**Impact/Accomplishments:**

Over 13,000 Montanans (adults, senior citizens, and youth) were directly contacted by FSNEP in FY 00. Some participants completed a series of lessons, while some participated in one or more lessons or demonstrations focused on improving food skills. An additional 25,000 indirect contacts were made by the program offering Montanans information through newsletters and displays. Adults who completed the lesson series reported that they improved one or more food resource management practices, improved nutrition practices, as well as food safety practices. 81% of youth who participated improved their practices in food preparation and food safety.

**Source of Funding:**

Federal grant

**Scope of Impact:**

State specific

### **Goal 3: A Healthy, Well Nourished Population**

#### **Overview:**

The prevention of chronic disease through the adoption of health-promoting lifestyle has been a major emphasis for the MSU Extension Service. To address this concern, the Extension Service in Montana has implemented several program strategies.

- The first strategy is to train and support teachers, caregivers, and youth educators in nutritional education efforts for children. Programs were conducted in Fergus, Prairie, Sheridan, Hill, Richland, Rosebud, Treasure, and Teton Counties reaching 69 teachers, caregivers, and youth educators as well as 848 youth. Evaluations indicated that 181 youth were making healthy food choices.
- Another strategy is to develop university and community partnerships to promote Eating Disorders Awareness Week. Five Tickets To Good Health - Proven Practices That Work program is a strategy to overcome diet mentality and adopt healthy approaches to weight issues. Programs conducted in Cascade, Custer, Chouteau, and Carbon Counties reached 6,526 people. Over 95% indicated aspirations to adopt healthy approaches to weight issues.
- Collaborate in Eat Right Montana and Five A Day nutrition education themes. Programs were conducted in Deer Lodge, Hill, Missoula, Pondera, Stillwater, Yellowstone, Fergus, Blaine, and Teton Counties. 840 people participated in educational programs and 663 indicated the adoption of recommended lifestyle practices.
- Deliver accurate research based nutrition message via media. See theme overview for details.
- Other programs related to healthy life styles were presented in 13 counties reaching 1070 people with 1025 indicating aspirations to adopt recommended practices. Programs included such topics as strength training, the incorporation of commodities, stress reduction practices, cooking practices, incorporating the use of locally produced foods, to the use and preparation of wild game.
- A total of 596 professional staff days were devoted to the planning, delivery and evaluation of programs in goal three. We have achieved or exceeded our goals for the first year in reaching the desired target audiences and achieving or exceeding the desired level of Outcomes. We exceeded the projected resource allocation of State, Federal 3b,c and local dollars to this goal.

Goal 3:

#### **Key Theme: Health Promoting Lifestyles in the Prevention of Disease**

#### **Brief Description:**

Montana's Pathways to Health: Preventing Eating Disorders is a statewide campaign to enhance public awareness of eating disorders and contributing cultural attitudes, with goals of primary, secondary and tertiary prevention. The campaign's mission is to promote health and fitness for people of all shapes

and sizes. Campaign activities included utilizing the national materials from Eating Disorders Awareness Week, broadcast of a statewide public TV program "Eating Disorders Awareness: Which Road Will Our Youth Take?", statewide access to eating disorders on-line assessment via an MSU-generated web page, and local school and family programs. Media events were coordinated by teachers, Extension and other community leaders, dietitians, and counselors, MSU Student Health Services, MSU Student Dietetic Association, and MSU University Food Service. Partners included MSU Student Health Services, MSU Extension Service, MSU Food & Nutrition Program, MSU Department of Psychology, MSU University Food Service, Nutrition Education and Training Program- Office of Public Instruction, Montana Department of Health & Human Services, and local Community Nutrition Coalitions.

**Impact/Accomplishments:**

According to the 1997 Montana Youth Risk Behavior Survey, about 54% of Montana teens think they are "about the right weight; 65% of high school girls are trying to lose weight; 11% of high school girls made themselves vomit and/or took laxatives to lose weight. Because of these alarming statistics various departments at Montana State University (MSU) and other state agencies developed a statewide eating disorders campaign to enhance public awareness of eating disorders and cultural attitudes contributing to eating disorders. Impacts of this multiple project campaign included increased awareness of eating disorders among individuals and families; increased community awareness and utilization of related resources in those communities; and increased ability among health professionals to address prevention and treatment of eating disorders.

**Source of Funding:**

State

**Scope of Impact:**

Multistate

Goal 3:

## **Key Theme: Health Promoting Lifestyles with Aging Services**

### **Brief Description:**

MSU Extension-Food and Nutrition has been partnering with Aging Services through the Department of Public Health and Human Services and through local Senior Centers to increase access to current nutrition, health and food safety information for Montana's senior citizens. The goals of this partnership are to help seniors stay healthy and live independently. The target population for the workshops, programs and materials developed by this partnership are primarily those seniors participating in the Federally funded Elderly Nutrition Programs (ENP) throughout the state which provide nutrition and other services to approximately 30,000 senior citizens.

Specific projects supporting this program are: 1) Presentations on food, nutrition, and activity information and resources at MSU Extension Annual Conference. Specifically, a train-the-trainer program titled "Nutrition Screening at the Senior Center" and a presentation titled "Montana's Present and Future Outlook for Nutrition in Aging".

### **Impact/Accomplishments:**

This grant provides the services of a registered dietitian to the Department of Public Health and Human Services, Office on Aging. The partnership between Aging Services and MSU has been a great success and is essential to setting the stage for partnerships that are necessary to meet the expanding needs of Montana's elderly population. An increased number of Extension agents have become involved with education for the elderly, and there is an increased level of partnership between Extension and aging services creating greater educational opportunities for the elderly.

### **Source of Funding:**

Smith Lever 3b&c  
State  
Local

### **Scope of Impact:**

Statewide

Goal 3:

## **Key Theme: Promoting Community Empowerment of Food and Nutrition Issues and Social Environment**

### **Brief Description:**

Promoting community empowerment and enhancing community capacity to address food and nutrition issues are essential in today's economic and social environment. Current national and state trends are increasingly transferring food and nutrition program responsibilities to communities, often with minimal financial or resource support.

Many Montana communities have created community-based nutrition partnerships to address their interests, needs, and growing responsibilities. These partnerships have conducted community nutrition assessments, identified current and future needs, while also promoting community empowerment and enhancing community capacity through collaboratively identifying and resolving food and nutrition issues.

Specifically, several coalitions have chosen to develop community food projects which help sustain local agriculture and food systems. Local or regional food projects can boost local economic development and increase consumers demand for locally grown food. These projects can help improve economic conditions and opportunities within the community as well as improving access to healthy, locally produced food.

### **Impact/Accomplishments:**

MSU Extension is initiating community collaborations that create the community capacity to develop education interventions that will prevent and manage the complications of malnutrition and its associated health risk in Montana elderly. This collaboration will build upon the already established links as well as create new links within the community. Additionally, the MSU Extension Food and Nutrition Specialist has 1) Promoted ongoing community food and nutrition assessment; 2) Provided resources to implement solutions to local needs; 3) Provided nutritional analysis and nutrition fact labels to Montana food processors; 4) Facilitated a MSU forum among faculty to address food science needs related to Montana grown foods; and 5) Promoted MSU Extension's work in food and nutrition community capacity building at a national presentation "New Challenges Extending Nutrition Education through Community Involvement & Action".

### **Source of Funding:**

Smith Lever 3b&c  
State  
Local

### **Scope of Impact:**

Statewide

## **Goal 4: An Agricultural System that Protects Natural Resources and the Environment**

### **Overview:**

Montana is known as “the Last Best Place.” A statewide survey revealed that the public is concerned with environmental issues at many levels. There is concern for water and air quality, soils, rangelands, forest, wildlife, and multiple use of public lands.

- Five hundred ninety-eight field faculty days were devoted to developing, implementing and evaluating these programs. 2.5 FTE of Specialist time was devoted to this goal. Faculty are on a combination of Federal Smith/Lever 3b&c, State and County funding sources. Five thousand seven hundred seventy-four people attended, 3,123 indicated an aspiration to put their new knowledge into practice and 2,569 actually adopted practices.
- Coal Bed Methane provides an economic opportunity for some agricultural producers. However, there is a risk that water used to extract the methane could degrade surface water quality. Extension is involved in providing information for informed decision making regarding this issue. In one county, 150 individuals have participated in informational meetings and 10 have made informed decisions that are consistent with protecting the environment.
- The Noxious Weed Seed Free Hay program is delivered in 10 counties with 12,000 tons of hay being certified. Growers receive about \$15.00 per ton premium thus realizing a \$180,000 return in additional income. This hay is needed for pack animals by individuals packing into wilderness areas, thus protecting that environment from invasive and noxious species of plants.
- Noxious weed education has occurred in nearly every county where an Extension program exists. Two hundred seventy-nine field faculty days and 150 specialist faculty days have been devoted to bringing education to 2,633 individuals. Evaluation efforts revealed that 1,343 of those individuals have put their new knowledge into practice in the management of noxious weed plants.
- Water well testing, water quality education for youth and adults, water quality education as it effects surface water and riparian areas were the general focus of educational programming that was presented. These programs were in collaboration with other federal and state agencies and 1,690 people completed programs with 421 individuals putting new knowledge into practice.
- Master gardener programs were completed in 8 counties with 585 completing the program and 574 implemented recommended practices. Many of the participants donated their expertise to help others with horticultural questions. In one county, over 300 additional gardeners benefited from time donated by trained master gardeners.
- Five hundred ninety-eight producers completed educational classes in Rangeland improvement practices and 188 of them implemented recommended practices. One agent reported that three producers invested in cross fencing and rotated their season of use as a result of what they learned.

- Sixty-six private forest owners participated in one of five forest stewardship workshops. Each participant developed a 10 year stewardship plan for their forest property. Fifty-nine participants agreed to have their plans certified with a visit to the property by one of the trained stewardship advisors. Those 59 stewardship plans represent 7,245 acres of forest in Montana. These plans will insure that soil and water resources are protected.
- One thousand nine hundred sixteen producers participated in IPM programs related to insect, weed and disease control measures. Five hundred twelve producers implemented new practices in controlling and managing pests.
- Three hundred sixty individuals participated in Wild Life Management and Endangered Species programs and 106 adopted practices.
- The State's assessment is that we have made good progress towards our five year goals in most areas. We expect our programming effectiveness to improve in two areas. Our efforts and effectiveness in the multiple use of public land issues should be expanded. Our documentation of efforts and results in the soils area needs to be improved.

Goal 4:

## **Key Theme: Soil Quality**

### **Brief description:**

Specialist has developed a comprehensive education program addressing soil organic matter-carbon sequestration and impacts of coal bed methane development on soil quality. Initial emphasis has been placed in defining issues and characterizing parameters of soil quality. A minor component of this program also addresses the issue of the role of organic farming with respect to soil quality. A fact sheet series, public news release series, and seminar/workshop series were developed dealing with each of these issues. Landowner workshops addressing impacts of and management of coal bed methane well water discharge have been conducted in 12 counties, addressing the educational needs of nearly 2,000 landowners in southeastern Montana. Crop producer workshops addressing the potential opportunities and benefits of organic matter management-carbon sequestration have been conducted in 14 counties, addressing the educational needs of 245 dryland crop producers in central and north central Montana. Cooperating Institutions/Organizations: Montana Bureau of Mines and Geology, the USDA Natural Resources and Conservation Service, the Montana Agricultural Experiment Station, the U.S. Geological Survey, the U.S.D.I. Bureau of Land Management.

### **Impact/Accomplishments:**

More than 2,500 crop and livestock producers in Montana have been sufficiently educated regarding soil quality issues to empower them to make decisions with confidence about resources management which will potentially impact soil quality and have economic implications for landowners.

### **Source of Funding:**

Specialist Salary (~30% FTE to this program) - State  
Smith Lever 3b&c  
Local

### **Scope of Impact:**

Generally statewide, but primarily focused on agricultural production areas within Montana east of the Continental Divide; dryland and irrigated crop production areas and rangelands. Due to nature of educational activities, impacts extend into neighboring states of Wyoming, Idaho, Oregon, Washington and North Dakota and into neighboring Canadian Prairie provinces of Alberta, Manitoba, and Saskatchewan.

Goal 4:

## **Key Theme: Water Quality**

### **Brief Description:**

Extension specialist, cooperatively with Natural Resources specialist, has developed a ½ day, on-site landowner education program dealing with stream corridor and water quality monitoring. Emphasis of program is empowerment of landowners to address watershed and water quality protection issues on a watershed basis. Landowner community action groups are trained in land use impacts on water quality and water quality parameter monitoring. Workshops were conducted with 18 watershed landowner groups, involving approximately 150 individuals. Extension specialist has developed a state-wide private well water user education program involving water quality testing of private well samples, follow up education, and referral of participants to private water testing services. The program, initially conducted solely as cooperative effort with the Montana Agricultural Experiment Station, is now cooperatively conducted with the Montana Department of Environmental Health and Human Services and privately owned water testing labs. Approximately 9,500 individuals have been educated through this program, with participation averaging approximately 1,200 individuals annually. Cooperating Institutions/Organizations: Montana Agricultural Experiment Station, Montana Department of Environmental Health and Human Services, Montana Farm Bureau, private enterprise.

### **Impact/Accomplishments:**

Eighteen landowner watershed groups have been trained in stream corridor and water quality monitoring and have access to continuous use of water monitoring equipment through county Extension offices; approximately ½ of these groups have maintained active watershed monitoring programs. Approximately 1,000 private well water users have been advised of the presence bacterial contamination in their domestic water supplies; approximately 200 private well water users have been advised of the presences of elevated nitrate-nitrogen levels in their domestic water supplies. Follow up assessments indicate that nearly 98% of these individuals have taken appropriate action, either disinfection or installation of water treatment facilities, to address these concerns.

### **Source of Funding:**

Specialist Salary (~35% FTE to this program) - State  
Other funding sources - USDA Water Quality Programming Grant  
Private well water user participation  
Smith Lever 3b&c  
Local

### **Scope of Impact:**

State specific

Goal 4:

**Key Theme: Wildlife Management, Natural Resource Management, Forest Resource Management, Integrated Pest Management and Endangered Species**

**Brief Description:**

The Extension Specialists address issues related to environmentally sound multiple use of natural resources. Landowners and public land managers learn to scientifically manage wildlife (including endangered species) in a way that addresses the needs of other land uses. Publications, workshops, videos and presentations provide opportunity for landowners and the public to develop strategies to cope with concerns related to forest and rangeland management. Cooperating institutions/ organizations: MT Department of Fish, Wildlife & Parks; University of MT; USDA/ Natural Resource Conservation Service; MT Stockgrowers Association; and various sportsmen and environmental organizations.

**Impact/Accomplishments:**

Over 5,000 people attended meetings and/or presentations conducted by Extension Specialists. Evaluations indicate the majority of them have increased understanding and ability to address natural resource related issues.

**Source of Funding:**

Smith-Lever  
State  
Local

**Scope of Impact:**

State specific

## **Goal 5: Enhanced Economic Opportunity and Quality of Life for Americans**

### **Overview:**

- Input from statewide sources and surveys indicate the backbone of a healthy state and community is strong and healthy families. Efforts by Montana Extension personnel to enhance economic opportunity and quality of life for Montana citizens contributes to healthy communities and families. During the past year, much successful effort was given to goal 5 of the Montana Plan of Work. Progress has been made toward reaching the predicted outcomes and recording impacts to date.
- Work in the area of pollution prevention, energy conservation, management of home hazardous materials, recycling, water quality and other thrusts have resulted in over several hundred youth and adults learning about new practices that can benefit their quality of life and economic well being. Additionally, estate planning and family resource management initiatives have caused people to write wills and take steps in transferring property to achieve intended goals. Surveys indicate that approximately 650 people or 40% of all enrolled participants are involved in some action; 93% have established a savings account or plan, 94% a checking account system for their families, 87% established financial goals and record-keeping solutions for solving debt and credit problems and 89% reduced their household debt and increased their savings.
- Business promotion, retention and expansion projects and tourism programs have all had positive results in communities. About 17,360 people learned about potential strategies that can add value to their communities and of that number 10,907 reported they were adopting practices they have not used previously. The EDUFAIM effort has worked to help at risk families to develop skills, knowledge and competence necessary for managing family resources and progressing toward a self-supporting life-style. An evaluation survey indicated that favorable changes were achieved by families in the area of job seeking, political efficacy, external locus of control, and on the job behaviors. Additional efforts for Children, Youth and Families at Risk revealed that through a program called Developing Capable People, an estimated 1221 youth and adults have learned strategies on helping youth become capable in their endeavors. One thousand sixty eight participants reported they plan to apply the newly learned approaches to their classroom and family settings.
- Youth Development/4-H programs have provided opportunities for life skill development and understanding in leadership, a variety of subject matter, character education, and workplace preparation. According to a research study conducted this past fall, it can be confidently stated that Montana youth who are currently enrolled in 4-H or have participated in 4-H in the past are more confident, competent, connected, caring and compassionate than their peers. The over 11,000 club members and 28,300 youth involved in 4-H programs are having quality experiences and building positive relationships they will be able to use for years to come.
- According to the 5 year Plan of Work submitted by Montana, the work being done in the category of goal 5 is on target. Programs have been developed based on an accurate needs assessment which makes them relevant to the people of the state. The impact data is a testimony to the value of this education and will only build over the next several years.

Goal 5:

**Key Theme: Leadership Training and Development**

**Brief Description:**

Montana Extension has a history of leadership development training stretching back 30 years. During FY 2,000 Montana helped develop the Western Extension Leadership Development program to help Extension faculty improve their own leadership skills.

Local government leadership skills trainings were conducted for County Treasurers and for the Montana Association of County Clerks.

At the county level agents in Deer Lodge, Sheridan, Madison-Jefferson, and Pondera counties conducted programs to help local residents improve their volunteer leadership abilities in the areas of: group processes, board participation, consensus building, cooperation, collaboration, communication, and conflict management. The state community development specialist conducted leadership styles training for the Montana County Clerks Association.

**Impacts/Accomplishments:**

There were 261 training participants, with 164 adopting new skills.

**Sources of Funding:**

SmithLever 3b&c

State

Local

**Scope of Impact:**

Multi-state Extension: MT, OR, CO, AL, CA, AR, ID, WA, NM and UT

Goal 5:

**Key Theme: 4-H Leadership Training and Development**

**Brief Description:**

Volunteer leaders are key in the delivery of education to youth in Extension programming. Recruitment and training of those volunteers are essential in having an adequate and well trained teaching pool. A regional recruiting effort has been introduced into the state as a way to reach new volunteers interested in sharing their skills and expertise with youth. Counties have been introduced to the recruiting program and plans laid for implementation. Step one is for counties to identify areas in which they need additional volunteer help. Discussions about leaders training are common among Extension people. The profile of volunteers is changing, so the methods of leader education must respond. Leader certification is required in some 4-H projects while a more general approach is used with all leaders. There is a shared belief however, that some type of mandatory leader training must be implemented and efforts are starting for another regional thrust to develop a program. In Montana however, leader education is conducted for youth and adult volunteer leaders working in the 4-H program. It is done in a variety of methods around a variety of topics ranging from statewide conferences to one on one help sessions.

**Impacts/Accomplishments:**

The 4,531 Montana volunteer youth and adult volunteer 4-H leaders report they feel adequately prepared to do provide leadership to their 4-H clubs. Those who have been certified however, report they are very confident in the teaching role for which they have volunteered. It is also observed, that those who are more likely to have a deeper commitment to their position.

**Source of Funding:**

SmithLever 3b&c  
State  
Local

**Scope of Impact:**

Multi State Extension (Strengthening 4-H Clubs) with the 13 Western States.  
Multi State Extension (Marketing Program) with the 13 Western States.  
(WA, OR, CA, NM, CO, UT, WY, AZ, NV, AK, HI, MT, ID)

Goal 5:

**Key Theme: Character Ethics/Education**

**Brief Description:**

The Character Counts program has helped several communities educate youth about ethical behaviors and decision making. In most cases, the program has been delivered in a youth/adult partnership model with teens assuming most of the leadership role with younger youth. Older youth have taught classes in grades K–6 and in the after school programs. The Character Counts program focuses on six pillars of ethical behavior including such things as respect, fairness, citizenship, responsibility, and trust. The Talking with TJ programs have also been used to supplement character education efforts and ethics programs have been presented to youth who are enrolled in 4-H livestock programs. All of these efforts are focused on giving youth the tools to make good choices.

**Impacts/Accomplishments:**

Teachers have reported a difference in behavior between those youth who have taken the Character Counts program and those who have not. They say students are more considerate, respectful and responsible. One school has formally integrated the program into the 3rd and 4th grade curriculum. Other schools are involving other youth to deliver the program during school hours or in the after school programs. Approximately 622 youth have participated in these classes over the past year.

**Sources of Funding:**

Smith Lever 3b&c  
State  
Local

**Scope of Impact:**

State Specific (is delivered in many other states as well)

Goal 5:

**Key Theme: Children, Youth and Families at Risk**

**Brief Description:**

The 9 week Developing Capable People course has been widely taught across the state to teachers and parents. The program goal is for participants to become familiar with three perceptions and adopt four skills that help youth deal successfully in their world. In addition, the hours after school and before parents return home from work is the time most likely for young people to experiment with drugs, alcohol and sex as well as juvenile crime and delinquency. After school programs have been developed so young people may become involved in positive activities. Topics taught in after school venues include tobacco prevention, conflict resolution and team building, making healthy snacks and simple nutritious meals, literacy and entrepreneurship skills to mention a few. The involvement in after school activities by Extension varies in each community from providing curriculum to guiding the administration.

**Impacts/Accomplishments:**

An estimated 1221 youth have participated in these programs with approximately 1068 intending to adopt skills learned. One participant reported that "The strategies I have learned in Developing Capable People have already made a profound impact upon my classroom and my philosophy of education. I plan to continue to use the strategies from Developing Capable People to improve my classroom discipline, be a better teacher and to develop capable people for a rapidly changing and diverse society." Other reports indicate youth have indeed, made better choices about snacks and the use of tobacco.

**Sources of Funding:**

SmithLever 3b&c  
State  
Local

**Scope of Impact:**

State Specific

Goal 5:

**Key Theme: Community Development**

**Brief Description:**

The Community Development Specialist led a Gallatin County Government Strategic Planning project attempting to heal deep and widely publicized wounds and get County Government moving in a positive direction.

During FY 2000 Agents across Montana conducted a wide variety of programs addressing local concerns and opportunities:

disaster planning, training and action, in response to forest and wild fires in Ravalli, Carbon, and Choteau Counties, county road mapping, naming and signage, youth issues - Big Brothers and Sisters, foster care, Vista projects, nationally recognized entrepreneurship programs, in tergenerational interaction, Native American children and youth concern response teams, tree planting and replacement, animal shelters, cultural and ethnic celebrations, county and Western Regional community growth and natural resource planning, volunteer opportunities identification; plus community visioning projects in Teton, Deer Lodge, Jefferson counties and the Billings area.

**Impacts/Accomplishments:**

County Agents reported 11,098 Montana's participated in the programs and resulted in 9,472 people adopting new practices.

**Sources of Funding:**

SmithLever 3b&c  
State  
Local

**Scope of Impact:**

Most were state specific.  
Multi-state Extension: ID, WY

Goal 5:

**Key Theme: Promoting Business Programs**

**Brief Description:**

Montana and Nevada received a small Forest Service grant in FY 2000 to serve as pilot states for a regional/national Targeted Industries Project. The goal is to develop and test processes that can help communities focus attraction/retention efforts on industries that best match the community's characteristics and goals. Pilot projects have been launched in Deer Lodge and Madison Jefferson Counties.

During FY 2000 Montana Extension teamed with the Montana Ambassadors and the Governor's Office to conduct our third state-wide Business Retention and Expansion Project. This year's emphasis was on high tech businesses. Sixty three businesses participated. Their number one concern - finding qualified employees. Program results have been passed on to the Governor and State Legislature.

Agent led business promotion programs this year included: irrigated and alternative crops, grain elevators, potato and dairy industries, business retention and expansion, business and marketing plan development, NxLevel small business start-up training, a pilot Enterprise Facilitation project, building business teams training, one on one business education, homebased business training, redevelopment of vacant business sites, business recruitment, small business newsletters, main street retail education, retail trade area analysis, entrepreneurial round tables and lots of collaboration with other local economic development organizations.

**Impacts/Accomplishments:**

Program participants numbered 5,253 with 1,097 adopting new practices.

**Sources of Funding:**

Smith Lever 3b&c  
State  
Local

**Scope of Impacts:**

Multi-state Extension: MT, NY, NM, UT, OK, NC, MO, CA, ID, WA and OR

Goal 5:

**Key Theme: Tourism**

**Brief Description:**

The Montana Community Development Specialist continued serving as Chair of the National Tourism Extension Education Task Force. The major Task Force accomplishment this year was organizing and conducting the National Tourism Education 2,000 Conference in Hawaii. Planning has begun for the 2002 conference.

Community Tourism Assessment Projects were completed in Whitehall, Red Lodge, and Glasgow. Selected local projects included rodeo grounds improvement, wildlife viewing areas, and a kids fishing pond. New CTAP projects were launched in Miles City, Pondera County and the Fort Peck Indian reservation. The English Countryside Commission requested a presentation on the process at their sustainable tourism conference.

The Community Development Specialist helped plan and present two "Agri-tainment" workshops for North Dakota farmers and ranchers seeking to diversify their operations.

Agents reported FY 2000 tourism activities including participation in tourism "country's" boards, obtaining funding for a wildlife museum, distribution of promotional videos, and a Tourism Potential for Butte program.

**Impacts/Accomplishments:**

In addition to CTAP project development and funding, tourism education programs attracted 1008 participants with 174 adopting new practices

**Sources of funding:**

Smith Lever 3b&c

State

Local

**Scope of Impacts:**

Multi-state Extension: MT and ND

Goal 5:

**Key Theme: Workforce Preparation**

**Brief Description:**

A multi session course called Teens "n" Tourism has been taught to 98 youth across the state. The purpose of the curriculum is to make those youth who are serving as front-line employees more familiar with tourist attractions in their communities, to connect youth with businesses and community in a significant way, to demonstrate how tourism affects other businesses in the community and to promote excellence in customer service. After completing the course, youth are presented a certificate that they can show to potential employers. All of the skills learned will help youth obtain jobs and be successful after they have been hired.

**Impacts/Accomplishments:**

Eleven youth reported they used the skills learned to secure and keep employment. Eighty -seven percent of those involved reported they acquired useful knowledge about their communities, how to be polite to even the most angry customers, how to give clear directions, and how to prepare for and present themselves in an interview. Youth who have been through the Teens "n" Tourism program are more likely to get employment, especially in the tourism field, than other youth.

**Source of Funding:**

SmithLever 3b&c  
State  
Local

**Scope of Impact:**

State Specific  
Multi Institutional

Goal5:

## **Key Theme: Youth Development/4-H**

### **Brief Description:**

Project and life skills are offered to youth through the 4-H curriculum. Youth learn knowledge in a variety of subject matter ranging from nutrition to aerospace, market livestock to photography. In addition, they learn marketing skills by developing PSA's for radio and TV or holding activities to attract their colleagues to join 4-H. Examples include the Listen Up program, Science ROCKS, Newspaper blitzes, school programs and other community events. When a young person joins 4-H, nearly 150 learning project activities are available for him/her to select areas of interest to study through the organized curriculum. Specific "how to" sequential experiences provide youth with a strong basis for being successful in their endeavors. Youth may also gain skills and knowledge through the special interest programs. They are often delivered through the schools or in joint efforts with other organizations.

### **Impact/Accomplishments:**

MSU research indicates that Montana 4-H youth are making contributions to improve the quality of life in their families, neighborhoods and communities. While about 17% of Montana kids are not involved in any out-of-school activities or programs, 4-H kids are very involved. Over half of all 4-H members (56%) are involved in one, two or three out-of-school activities. Research shows that 4-H kids are more likely than other kids to 1) Succeed in school, getting more A's than other kids, 2) Be involved as leaders in their school and the community, 3) Be looked up to as role models by other kids, and 4) Help others in the community. 4-H youth reported that they are less likely than other kids to 1) Shoplift or steal, 2) Use illegal drugs of any kind to get high, 3) Ride in a car with someone else who has been drinking, 4) Smoke cigarettes, 5) Damage property for the fun of it, 6) Skip school or cut classes without permission. They also reported that they felt their contributions were more likely to be respected and listened to by their families, by other adults and by the communities in which they live. The study revealed that youth in Montana 4-H have a positive self-identity which gives them the confidence to succeed in life and that they feel more socially competent and self-assured than other youth. 4-H members in Montana are more likely to have a positive view of their role in the community and the future as well. Finally, 4-H youth have better relationships with adults than those who have not been in 4-H and indicate they are more likely to talk to their parents about important issues in their lives. The 11,227 youth enrolled in 4-H clubs and to a lesser extent the 17,142 young people involved in 4-H special interest activities, are more confident, competent, connected, caring and compassionate than their peers.

### **Source of Funding:**

Smith 3b&c  
State  
Local

### **Scope of Impact:**

State Specific

## Stakeholder Input Process

Stakeholder input for programming planning has been obtained at three levels.

There were four Extension Public Input Listening Sessions, conducted by David Dooley, Provost and Vice President for Academic Affairs; David Bryant, Vice Provost and Director of Extension; Greg Johnson, Entomology Department Head; Sue Blodgett, IPM Specialist; Sharon Quisenberry, College of Agriculture Dean and Director of Ag Experiment Stations; and a local facilitator. The purpose of the meetings was to listen to stakeholders explain what programs and educational focuses the Montana State University, the College of Agriculture, Research Centers and the Extensions Service should be providing to the citizens of the state. The meetings were held in July 13, 2000 in Billings (38 participants); July 19, 2000 in Sidney (16 participants); Lewistown on September 5, 2000 (23 participants); and September 19, 2000 in Missoula (26 participants).

The second level of Stakeholder Input, as reported by thirty-two counties in their annual reports, center around the traditional sources of input, e.g., county commissions, commodity groups, such as grain and stock growers associations, advisory committees, producers, boards, informal and formal evaluations filled out at seminars and meetings, state department of agriculture and other agencies. Over 140 of these traditional sources were reported.

The third level of stakeholder input used to identify and gain input from the under served and under represented was a survey conducted by the Agricultural Experiment Station, College of Agriculture and Extension Service at Montana State University. The purpose of the survey was to collect input from a representative group of stakeholders in Montana, with particular documentation of gender, race, location of primary residence, income level, and employment status.

The total number of estimated households in Montana as of July 1, 1998 was 346,000. A proportional stratified random sampling technique was used to identify 6,000 households with addresses in 312 cities and towns located in each of the 56 counties in Montana.

There were 1,863 questionnaires or 31.2% returned. Of those returned, 1,795 or 30.0% proved to be useful for data analysis. More detailed analysis of the data continues at this time. The complete Extension portion of the Stakeholder Survey Summary can be found on the CD Rom in the directory named "Supporting Documents". The document is named "Stakeholder Input Survey".

## **Program and Merit Review**

TO: Rick Williams  
Special Projects Coordinator  
MSU Extension Service

FR: Jim DeBree

RE: MSU Extension Plan of Work

DATE: July 28, 2000

The merit review committee selected by your office has finally completed their assignment in conducting a peer review of the Montana State University Extension Service Plan of Work for FY00-04. This assessment was conducted independently by each member utilizing criteria as outlined in the federal register.

The plan of work does a good job of describing the needs which Extension plans to address and the means by which they will initiate educational programming. The document reflects the application of creative solutions to some very important issues facing Montana citizens and communities.

The introductory information stating current situations and problems in need of action was detailed and well done. The key issues identified (page 36) are commendable and intended to address the most critical problems. In the past year, economic development in all areas listed, has risen to prominence as has value added and technology transfer particularly as applied to agriculture. The peer review committee assumes that the plan will be flexible enough to address critical issues that may emerge within the next five years. The committee believes that annual updates of the long range plan will be important in order for Extension to maintain its relevancy to changes in social and economic conditions.

The plan defined integrated research and extension activities targeted to deal with issues in some detail. Except for multi-state programming and off-campus specialists, those described were traditional contacts. Seeking "creative areas of financing" for additional staff assistance is an interesting idea but would require staff time and effort to accomplish. This effort could be self-defeating if not carefully monitored.

Committee members recognize the diverse public demands of Extension, particularly at the county level. Quite possibly the incorporation and utilization of electronic technology can alleviate some of these problems and improve the efficiency of the delivery system.

Multi-county and multi-state efforts appear to be useful in the development of tourism. There is evidence of working with the state and a few other agencies but not listing Chambers of

Commerce, and other tourism related committees such as museums, art galleries, hotels and restaurants, all of which can contribute to this effort.

Under goal 5 the committee was pleased to note some planned contact with local economic development agencies, organizations or interested groups. There is little need or justification for duplication of effort with similar audiences.

The plan identified a few educational and outreach programs already underway in various localities in the state. Extension is encouraged to aggressively market these successful programs to improve their presence in the community and garner more public support.

Each goal defined in the plan listed the anticipated dollar amounts under resource allocation. It was unclear whether the dollar amounts represented current levels of spending or new and expanded allocations. Volunteers were rarely mentioned in the plan and even though recruitment of volunteers can be difficult, they represent a human resource with knowledge and expertise who could greatly enhance educational endeavors of Extension.

The terms “enhance and expand” were used in many areas of the plan however there needs to be clarification as to how and what. More personnel, travel, brochures, publicity, surveys, meetings, communications?

### **Issues**

Issues are referred to in several sections in the beginning of the plan. In each case the issues descriptions are clear and concise and appear to reflect the expressed needs of targeted audiences.

### **Goals**

The goals are clearly stated from the very beginning. The foreword sets the tone of innovation when it refers to the commitment to broadening the use of other appropriate educational and research resources. The “performance goals” as stated in the Action Plan appear to be achievable and easily understood.

### **Target audiences**

Target audiences are clearly identified and describes Extension’s perception for special emphasis. The plan does an excellent job in describing the “target audience” and the educational efforts required to address their needs. Extension agents interested in implementing this plan will know precisely where to go to reach the target audience.

### **Research and Extension Programming**

The plan clearly identifies key program components which are targeted to specific audiences and issues. One committee member was surprised that the concern for information about

genetically engineered crops was not addressed in the plan. This particular issue may have arisen since the time issues were identified in the early stages of the planning process.

### **Planning process**

The section titled “advisory processes” gives the reader a sense of how the programs with the Extension Service are conceived and developed. For those not acquainted with Extension, a more explicit introductory paragraph in the section would be helpful. By stating that inputs from the advisory process leads directly to the development of programs, the reader understands the importance of citizen participation in the identification of needs.

### **Allocation of resources**

Monetary resources allocated for each goal in the Action Plan are clearly stated. The tabular format in Appendix B is well done and gives the reader a concise picture of resources required in conducting educational programs.

### **Collaborative partnerships**

There is evidence of partnerships as described in the plan however the committee believes Extension could strengthen this section through collaborative efforts with community colleges, state agencies, statewide groups and organizations, and non-profit organizations.

### **Multi-county programming**

There appears to be an opportunity for the incorporation of multi-county programming when the County Extension Plans of Work are aggregated as described on page 7. There could be more detail on how multi-county programming will be implemented and evaluated.

It is implicit in numerous places that specialists from numerous disciplines are involved in the planning and implementation of Extension’s educational plans. A more direct statement of the different disciplines would ensure that this point was conveyed.

### **Indicators**

Output Indicators and Outcome Indicators are clearly stated by which Extension can gauge their educational efforts. There should be no confusion from either Administrative personnel or Agents in the field over how to measure success.

### **Summary**

The work plan appears to be a functional and useful roadmap for Extension Service programs. The challenge to Extension is satisfying the needs of traditional audiences while reaching out through innovative programs to meet the needs of new and different audiences with perhaps entirely different needs. The plan represents a fairly sharp departure from years past and presents ample opportunity for more stakeholder involvement plus collaborative partnering with

multi-disciplines and multi-organizations. The plan should also serve as a functional model for University Extension agents to plan both county and multi-county programs.

### **Responses to the Merit Review Committee report dated July 28, 2000**

#### ***Integrated Research and Extension Activities:***

The monitoring of the Multistate Extension Activities and Integrated Activities for the U.S. Department of Agriculture State Research, Education, and Extension Service are documented in the Supplement to the Annual Report of Accomplishments and Results section. This section of reporting procedures was specifically designed by Sandy Rahn - Gibson Budget & Fiscal Director for MSU Extension Service to ensure that an audit can be applied if necessary.

#### ***Electronic Technology at the county and state levels:***

The need for information and the increase in technology has sparked major adjustments. These have included the addition of technology in the areas of the web based online reporting, major renovation of existing web resources including - streaming digital video and audio, online help forums and constituent feedback.

#### ***Tourism:***

Community Tourism Assessment Projects were completed in several counties and tribal communities. These projects included rodeo grounds improvement, wildlife viewing areas, and a fishing pond. Networking and with local chambers of commerce, economic development groups and committees.

#### ***Economic Development Agencies Goal 5:***

To continue to build working relationships Extension representatives participate on two committees (Youth and Labor Market Information and Economic Development) of the Governor's State Workforce Investment Board. The goal of the board is: The State of Montana will design a coordinated system to help Montanans gain marketable employment skills and expand a Montana economy in which skills will be better rewarded and sustained. These efforts will be guided by two long-term system objectives: 1) Promoting a diverse economy by providing skilled workers to emerging Montana industries, specifically those in information and advanced technology, health services, value-added agriculture, and communications; 2) Promoting continual skill development, increasing wages, and an enhanced standard of living for all Montanans while preparing Montana's youth with the knowledge and behavior skills necessary to enter and succeed in highly-skilled, high-paid careers.

#### ***Market Successful Programs:***

Annual Popularized Reports (Pop Report) are generated by each county. These reports of successful programs are compiled into a booklet format titled, Making a Difference and then distributed to constituents, policy makers, elected officials etc.

Some examples of these reports are enclosed as hard copies for the following counties:

Dawson County

Granite County

Madison-Jefferson Counties  
Yellowstone County

***Volunteers:***

See Goal 5, Key Theme: Leadership Training and Development

***Planning Process:***

The Advisory's committees are composed of members that provide a balance regarding program interests, men and women, ethnic and racial make-up, type of employment, volunteer or civic experience. The purpose's of the committees are to help in planning and conducting effective educational programs. They help in budget preparation and presentation, advise on staffing patterns and personnel, consult on public relations, inform those who need to know more, and maintain legislative ties at the local, state and national levels.

***Collaborative Partnerships:***

An example of the collaborative partnership is the working being do with the Western Rural Development Center (WRDC). In the area of Natural Resources Land Use Decisions and Wildfires. In response to Congressional support for a comprehensive response to areas impacted by the fires of 2000, 125 high-risk communities have been identified throughout the West. These communities will be the focus of a concerted effort to address fire risk issues in the forest-residential interface. The leaders of these communities need to learn what has occurred elsewhere in the region to address wildfire risk at the community level.

***Multi-County Programming:***

We will assemble Agricultural Agents and Specialists at the Research Centers in four regions of the state in September of 2001 to explore program development and implementation. This will facilitate the development of interdisciplinary, integrated and multi-county programming.

We are working with the University Administration and the College of Agriculture to develop a new Agricultural Program Leader position. Such a position is essential to the enhancement of interdisciplinary and integrated programming.

Montana State University Extension has adopted the Logic Model process for program development and evaluation. We have devoted our Spring Annual Conference to training in the use of that model. We have established a Montana Evaluation and Accountability Team to mentor Extension Faculty in the application of this model. Once this model is fully implemented, the MSU Extension Service will be positioned to provide additional information that will lead to greater accountability with stakeholders and decision makers.

## **Multi-state Extension Activities**

Our multi-state programs were centered around two issues: youth life skills development, and agricultural sustainability and profitability.

The Youth Life Skills Development involved several varied approaches in collaboration with Nebraska, Minnesota, Idaho, Wyoming, New Jersey, Michigan, Wisconsin, Tennessee, and Iowa. These programs include interstate exchanges, Character Counts programs, Ambassadors programs, After School programs, Community Asset Building, and Workforce Preparation.

The Agricultural programs were focused around integrated work on research and demonstration trials, and other related educational programs and events related to crop nutrients, pests and varieties were conducted in collaboration with North Dakota, Wyoming and Idaho. We collaborated with Wyoming on the WIRE (Western Integrated Ranch Education) program. We collaborated with Utah on our dairy program. These programs were supported by Smith Lever 3b&c funds in the amount of \$46,532.

Specialists reported multi-state programming on Endangered Species, Nitrate Testing field trials, Grazing Lands Conservation Initiative, Integrated Pest Management, Private Land Wildlife, Food Safety and Security, & Health Promoting Life Styles. These programs involved about 4 Specialist FTE. All of this work was supported on a combination of state and grant funds, representing a \$280,000 effort.

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## **Integrated Research and Extension Activities**

The integrated programs that we are reporting to reach our target were all centered around Agricultural Sustainability and Natural Resources.

These programs included Endangered Species, Nitrate Testing field trials, Grazing Lands Conservation Initiative, Integrated Pest Management, Private Land Wildlife, Food Safety and Security, Health Promoting Life Styles, Beef Quality Assurance, and Noxious Weed program. These programs were supported by Smith Lever 3b&c funds in the amount of \$78,565.

Specialists reported integrated programming on Beef Quality Assurance, Forestry Mini College, Water Quality Concepts, EDUFAIM, Highschool Financial Planning, Promoting Community Empowerment, Endangered Species, Nitrate Testing field trials, Grazing Lands Conservation Initiative, Integrated Pest Management, Private Land Wildlife, Food Safety and Security, & Health Promoting Life Styles and others. These programs involved 7.2 Specialist FTE. All of this work was supported on a combination of state and grant funds representing a \$500,000 effort.

## **Under-served**

There are seven Indian Reservations in Montana. Four of those Reservations are served by MSU Extension agents who are totally responsible for programs targeted at the needs of Tribal communities. Those four MSU Agents are enrolled tribal members with their respective tribes at each reservation. All seven Reservations have 1994 Land Grant Colleges that are receiving funding for Extension Projects. Montana State University Extension Service has partnership agreements with all seven Tribal Colleges and their Extension Agents have affiliate faculty appointments at MSU.

The Extension Program at the Northern Cheyenne Reservation focuses on Youth Development, led by 10 adult leaders and 5 teen leaders. The community gardening program has taught horticultural skills to 50 youth and adults. The Agricultural program has focused on loan application assistance, enterprise management and record keeping, Youth Ag Loan program, Crop IPM practices, livestock ration formulation, livestock reproduction management, weed control, rangeland improvement, wildlife enhancement, general livestock management practices and the Beef Quality Assurance/BeefAbility program. One hundred forty-six adults and 5 youth adopted practices. The 5 youth applied for and received youth ag loans for purchasing livestock. Twenty-five producers were assisted in the application of assistance under the American Indian Livestock Feed Program and received a total of \$183,318.00 for feed purchases.

The Extension program on the Fort Belknap Reservation focuses on Youth

Development through youth camps and youth ag loan programs. One hundred eighty-five youth participated in summer camps. One example of youth programs; 40 youth, led by 12 volunteer adult leaders participated in the Junior Livestock program. Over \$90,000 in calf sales were achieved with \$70,000 in loan payments made by these junior livestock producers. A total of 543 tribal members that were involved in educational programs actually adopted practices. Some other examples are as follows:

- Eight producers were assisted in completing agricultural ranch plans of operation and were all successful in receiving loans to purchase livestock. A total of \$200,000 was loaned.
- Twenty-five producers were taught to identify, prevent and control noxious weeds. Fifteen small infestations of leafy spurge and spotted knapweed were controlled by participants.
- Eighteen producers became BQA certified and will market their cattle through a coop.
- Four producers were able to establish 160 acres of alfalfa.
- Horticultural training resulted in 15 families fencing their yards and planting grass. Eight of them also planted trees and shrubs and established flower beds.
- Following financial management training, 12 families developed simple home budgets and filing systems. They were trained in how to reduce food costs and several did follow through and plant gardens.
- Three producers are incorporating stock water development into their plans for next year as a practice to distribute livestock over the range and prevent or reduce over-grazed areas.
- One hundred eighty-five youth improved self esteem through their participation in two summer youth camps.
- Twelve adults received 16 hours of leadership training and served as leaders for the non-traditional 4-H beef project .

Similar results were achieved on the Blackfeet Reservation and the Flathead Reservation Extension programs. Detailed accomplishment reports are available on request.

## **Information Technologies On Line Reporting/Web Based Material**

The need for information and the increase in technology has sparked major adjustments. These have included the addition of technology in the areas of the web based online reporting, major renovation of existing web resources including - streaming digital video and audio, online help forums and constituent feedback.

### **WEB BASED ONLINE REPORTING**

With the new challenge of developing a reporting system we set to task by checking out existing systems of neighboring states. Some had developed systems that suited them. These were available for sale but the cost prevented us from going that route. We also wanted to suit the largest audience with our system. We then decided to take the task of designing one specific to our needs. These needs included the Federal Guidelines set forth for this reporting year and the needs of our Human Resource department, Budget and Fiscal personnel and the Administration.

The Information Systems Office of Extension Service consists of two full time FTE employees. During the design phase of the reporting system, we consulted the survey done earlier that year. It asked all respondents to show what technology (hardware and software) they were presently using in database and reporting arenas. The ISS office decided to go with the least common denominator, that of Microsoft Access and the World Wide Web. A system was designed to allow Online Reporting via the MSU Extension Service Intranet.

This system was a two part design. One for the specialists housed on campus and the other for our county employees. This resulted in 886 reports submitted for the year 2000. The system was created in the last quarter and online for only 2 months. It was designed for the user who inputs daily, monthly, quarterly, or annually.

The information is processed in various ways:

- Performance Appraisal
- Program Review
- Civil Rights Review
- Multi-State and Integrated Data
- Stakeholder Input

The system was critiqued and changes will be implemented for the year 2001. These changes are a result of meetings with the staff of Extension Service on all levels.

## **MAJOR RENOVATION OF EXISTING WEB RESOURCES**

The Montana State Extension Service web site has increased from 20+ pages to over 150. The renovation has been praised by our staff and clientele.

We have added an online help forum for the world. It is a web based help section. The user can submit a question through the web site to the ISS office. It is then passed on to the correct specialist or agent for the topic or geographic location. We have received question from all over the United States and the world including Israel, New Zealand, Great Britain etc. These people may have similar soils or other needs that prompt them to contact us. 99% of all inquiries come from within Montana but with the advent of the World Wide Web we have been opened up to the world.

Montana is geographically large with the population wide spread. The connections to the Internet are extremely varied. We are in the process of implementing video and audio streaming to our web site. This will allow constituents to have access to video, audio and even class material that they may otherwise not get because of the geographic boundaries of this large state.

## **FEEDBACK**

We can only better ourselves if we listen to suggestions. This includes any constructive criticism

## Institutional Engagement

In March of 2000, David M. Dooley, Interim Provost and Vice President for Academic Affairs, sent the following memo to the Montana State University Extension Community:

“Many of you have written me over the past several days to express your view on the possible reorganization of our extension programs. I appreciate your interest and your comments very much. I have share your message with the President and he also welcomes and appreciates your participation in the discussion. At this time I would like to offer the following background and comments:

- (1) The question of the best management and administrative structure for MSU Extension was brought to my and the President’s attention by several, diverse parties. As part of our planning in response to the opportunities and changes facing Montana (see below) we have already identified this question as a potentially important one. Indeed one specific idea suggested to use was that a closer administrative relationship with the College of Agriculture and the AES would be beneficial. In our judgement the advice and recommendations we received on this were informed, thoughtful, and authoritative. Accordingly, it seemed advisable to explore the issues and reexamine our administrative and management structure for extension.
- (2) I emphasize that not change in the extension mission is being contemplated. We value the current diversity of extension at MSU and strongly support the community development, 4-H, economic development and assistance, fire service training, and health and human development programs of extension, in addition to the intrinsic agricultural orientation of extension in a rural state like Montana. We think the recently developed strategic plan for extension is sound.
- (3) There have been profound changes in MSU since the reorganization of extension 10 years ago. At the same time there have been dramatic changes in the state. Both new opportunities (e.g. Vision 2005) and new challenges (primarily associated with resources) and now before us. Therefore we think the examination of our administration and management structure is timely.
- (4) We have just began to consult those involved and our partners across the state. I thoroughly enjoyed meeting with and discussing the issues involved with a group of agents last week. In the coming weeks we will be consulting additional member of our extension community, various advisory groups, and other stakeholders. To assist in this, and to help us frame the discussion, we will be organizing small working roup (including extension specialists and agents, administrators, and representation from our external constituencies).

Again, let me thank those of you who have written over the past few days and especially the agents who met in Bozeman or conferenced in. The President and I very much appreciate your input, and the good work you do across the state.”

This was followed by the following course of action. In a memo dated September 14, 2000 from Dr. David Dooley, he stated:

“As you are aware, the Montana State University Extension Service is undergoing a review of its organization structure. As part of that process, we have commissioned a four-person external review team to look at all aspect of our Extension organization. That group will be on the MSU campus October 2-4, 2000. A full agenda for that visit is attached, in addition to a list of team members.”

We would like your active participation in the review process and invite you to meet the external review team as follows. Date, times and place were listed.”

Team Members:

Dr. Beth Birnstihl (Chairperson)  
Associate Dean Cooperative Extension Division  
University of Nebraska-Lincoln

Dr. David Forster  
Associate Director Cooperative Extension Service  
Oklahoma State University

Dr. Bob Gilliland  
Vice President for Extension and Outreach  
Utah State University

Dr. Susan Holder  
State Program Leader 4-H  
Mississippi State University

The review process and procedure was still under way at the end of December 2000.

## ***Revisions to the 5 - Year Plan of Work***

Program Development Process, pages 8 and 9.

The current program headings under all five national goal areas as adopted by the National Agricultural Research, Extension, Education and Economic Advisory Board will be replaced by the Key Themes as outlined in Appendix A of the Guidance for the Annual Report of Accomplishments and Results. Montana will adopt the Key Themes that are relevant to our plan of work. This will allow continuity and consistency with the Annual Reporting process, the online reporting system used by agents and specialists through the year, and will assist specialists in the identification of specific educational programs they will be offering to county agents.

Advisory Process page 19.

Add as first paragraph: “The Advisory’s Committees are composed of members that provide a balance regarding program interests, men, women and youth, ethnic and racial make up, type of employment, volunteer or civic experience. The purposes of the committees are to help in planning and conducting effective educational programs. They help in budget preparation and presentation, advise on staffing patterns and personnel, consult on public relations, inform those who need to know more, and maintain legislative ties at the local, state and national levels.

[4-H SURVEY]

[LONG VERSION—short version follows]

It's tough to be a kid these days! While many young people grapple with internal issues like esteem, self-confidence and acceptance by peers, they are simultaneously bombarded with outside influences like drugs, alcohol and sex. Toss in an excess of free time and parents who work long hours away from home, and you have a mixture that can be devastating for Montana's youth and teen-agers.

New research from Montana State University shows that how kids spend their out-of-school time can have a substantial impact on whether they engage in risky behaviors, such as drinking, stealing and using drugs.

A research team led by Kirk Astroth of the MSU Extension Service and George Haynes of the MSU Department of Health and Human Development surveyed 2,500 Montana youth in fifth, seventh and ninth grades from 21 randomly selected counties. They asked questions about how kids spend their out-of-school time, along with behavior-related questions, such as likelihood to participate in behaviors like stealing, drinking and smoking. They also asked questions about self-esteem, community involvement, relationships with parents and other positive behaviors.

The research team discovered that youth who are involved in structured out-of-school activities reported that they are less likely to get drunk, shoplift or steal, purposely damage property for the fun of it, use drugs to get high, smoke cigarettes, skip school without permission, or engage in other at-risk behaviors.

The researchers also found that young people who participate in the 4-H youth development program for a year or more fared better than their peers, including those participating in other after-school activities. The survey showed that 4-H members:

- are more likely to give money or time to charity
- are more likely to help the poor, sick or others
- get more A's in school than non-4'ers
- are more involved as leaders in school and community, and
- are more likely to be looked up to as role models by other kids.

[short version]

Research from Montana State University Extension shows that kids who participate in out-of-school activities are less likely to drink alcohol, shoplift, commit vandalism and use drugs. Those kids who have been active in 4-H for one year or more are even less likely to engage in such risky behaviors.

The survey showed that 4-H members are more likely to give money or time to charity, help the poor and sick, be involved as leaders in school and community and looked up to as role models by other

kids. They also get more A's in school.

## Helping Ranchers Cope with the Drought of '00

Severe moisture shortages have reduced pasture and hay productivity for the past three years in Western Montana, resulting in pasture overuse and hay shortages. Many ranchers were forced to ship cattle out of state for pasture or begin feeding hay early.

During the summer of 2000, we collaborated on several projects to help ranchers cope with the drought: press releases outlining drought strategies, cost/benefit analysis of using CRP for pasture, and a series of meetings to discuss grazing strategies, livestock nutrition and crop options for 2001 to arise from the "ashes."

Educators suggested crop options: Low cost/low risk cereal forages are favored over traditional perennial forage crops for the short-term.

Most producers are aware of their own forage shortages, but many had not considered that conditions may not return to "normal" even with major precipitation this winter (the combined effects of drought AND overuse), plus most had not considered crop options.

Because of the educational programs, acreage of cereals seeded for forage is anticipated to rise by 25 to 30% in 2001, with a potential gross increase of \$2 million in hay production.

## FORESTRY

Results of an independent 1999 survey of people who had attended Extension forestry stewardship workshops indicate that 87 percent have implemented their stewardship plan. Respondents reported that over 4,000 forested acres have been thinned and more than 4,000 acres have been sprayed for weeds. Over 9,000,000 board feet of timber and 9,000 tons of pulp have been harvested from workshop graduate properties. 48 miles of new road have been built, including 107 culverts installed to provide proper drainage and 11 bridges constructed. Over 3,000 wildlife habitat acres have been developed and more than 4,000 acres have been planted with trees. The survey also found that 76 percent of the audience reported changed thinking about natural resource management. Written comments expressed: a new understanding of forest resource integration, an appreciation for setting goals and objectives when doing long-range forest planning, and an acknowledgment of improved problem-solving skills.

## EDUFAIM

A two-year research study showed that participants in EDUFAIM, Extension's educational training for families leaving the welfare rolls, had almost twice the probability of obtaining employment than non-participants. EDUFAIM participants also showed statistically significant increases in intention to seek employment, and the belief that their job searches would be successful. In terms of skills,

nearly 50% of participants showed an increase in money management skills, and about 25% showed great consumption of healthy foods. Finally, interviewed graduates expressed real-life changes as a result of EDUFAIM: “I respect myself more and have more hope for the future,” wrote one. “They helped me a lot on managing my money and paying my bills on time,” wrote another.

#### (SHORT ONES FROM LEGISLATIVE REPORT)

#### AG

- Extension **ranked first among sources of nutrition management information** in a 2000 survey of Montana ranchers
- During 1999 and 2000, Montana Extension agents provided beef quality assurance training to more than 1,300 beef cattle producers—emphasizing food safety, consistency and source verification of feeder cattle. To date more than **38,000 calves have been certified through the Montana Beef Network**. One feedlot owner estimated that source-verified calves from the Network are worth up to \$3 more per hundredweight than non-certified calves.
- In 2000 wheat and barley producers **saved \$168,000** with cereal leaf beetle management techniques led by Extension’s Integrated Pest Management program
- In 2000, over 400 landowners attended Extension workshops on how to rehabilitate fire damaged lands.

#### FCS

- Extension’s Expanded Food and Nutrition Education Program (EFNEP) teaches food resource management and healthy food choices to over 300 families each year in Montana. A national study showed that for every **\$1 invested in the EFNEP program, \$10.64 in benefits** from reduced health care costs can be expected
- One Yellowstone County family credits the Extension Service with **saving them over \$45,000** as a result of information in the **Estate Planning** home-study course

#### 4-H and YOUTH

- Based on an identified community need, Extension **helped start an after-school reading program in Broadus**. The program brought teenagers, elementary kids and adults together in a fun, educational environment, and gave young children a place to go after school. Leadership for programs like these all across Montana began with 1,300 people who attended the Montana Governors’ Summit for Youth and formed action teams to help their communities
- **Many former and current 4-H’ers say that they are equipped to succeed in life because of skills learned in 4-H**—practical skills from 4-H projects, as well as life skills like responsibility, teamwork and conflict resolution. State expenditures per 4-H youth in Montana are

estimated at less than \$20 per year. This is a sound investment in positive youth development. In contrast, consider that the cost of incarcerating one juvenile delinquent is an estimated \$30,000 to \$35,000 per year

#### COMMUNITY DEVELOPMENT

Extension, in collaboration with MSU colleges and other organizations, helped the growth in Deer Lodge County employment from 1990 to 1998:

- **658 new jobs were created**, adding \$11.5 million\* per year in Deer Lodge County (\*658 x \$17,490, the average per capita income for the county in 1998)
- The largest growth rate was in retail trade followed by manufacturing, construction and the service sector.



**U.S. Department of Agriculture  
 Cooperative State Research, Education and Extension Service  
 Supplement to the Annual Report of Accomplishments and Results  
 Multistate Extension Activities and Integrated Activities  
 (Attach Brief Summaries)**

**Institution:** Montana State University

**State:** Montana

**Check One:**   X   **Multistate Extension Activities**  
           **Integrated Activities (Hatch Act Funds)**  
           **Integrated Activities (Smith-Lever Act Funds)**

**Actual Expenditures**

Title of Planned Program/Activity	FY 2000	FY 2001	FY 2002	FY 2003	Fy 2004
Ag System Highly Competitive in Global Economy	\$ _____	_____	_____	_____	_____
Healthy Well-Nourished Population	\$ _____	_____	_____	_____	_____
Ag System Protecting Natural Resources and Environment	\$ _____	_____	_____	_____	_____
Enhanced Economic Opportunity & Quality of Life for Americans	\$ _____	_____	_____	_____	_____
<b>Total</b>	\$ _____	_____	_____	_____	_____

2000 Multi-State Requirement													
Prepared by Sandra Rahn-Gibson													
	Total	Total	Total	Total	FY 00 County	Smith	Percentage	Smith	2000	Goal	Total Multi-	Smith-Lever	Smith-Lever
	Annual	FTE	Hourly	Daily	Portion Of	Portion Of	Smith	Portion Of	State	#	State	Portion	Multi-State
	Salary		Rate	Rate	Ann Salary	Ann Salary	Lever	FTE	Days		Project	Multi-State	FTE
			(8 Hours)				Ann Salary				Salary		
Smith	\$40,912	1.22	\$19.67	\$157.35	\$18,684.00	\$22,228.00	54.33%	0.66	3	1	\$472.06	\$256.48	0.01
Carlstrom	\$42,868	1.22	\$20.61	\$164.88	\$22,162.00	\$20,706.00	48.30%	0.59	20	1	\$3,297.54	\$1,592.77	0.05
Rumph	\$22,474	0.61	\$21.61	\$172.88	\$7,003.00	\$15,471.00	68.84%	0.84	4	1	\$691.51	\$476.03	0.03
Lovec	\$49,315	1.22	\$23.71	\$189.67	\$16,844.00	\$32,471.00	65.84%	0.80	37	1	\$7,017.90	\$4,620.87	0.11
Hill	\$40,984	1.22	\$19.70	\$157.63	\$17,246.00	\$23,738.00	57.92%	0.71	67	1	\$10,561.26	\$6,117.10	0.18
Halpop	\$41,594	1.22	\$20.00	\$159.98	\$16,771.00	\$24,823.00	59.68%	0.73	30	1	\$4,799.31	\$2,864.19	0.08
Angvick	\$41,425	1.22	\$19.92	\$159.33	\$15,538.00	\$25,887.00	62.49%	0.76	22	1	\$3,505.19	\$2,190.44	0.06
Friedrich	\$40,845	1.22	\$19.64	\$157.10	\$15,538.00	\$25,307.00	61.96%	0.76	5	1	\$785.48	\$486.67	0.01
Wolery	\$41,391	1.22	\$19.90	\$159.20	\$14,894.00	\$26,497.00	64.02%	0.78	2	1	\$318.39	\$203.82	0.01
Koenig	\$38,545	1.22	\$18.53	\$148.25	\$14,522.00	\$24,023.00	62.32%	0.76	2	1	\$296.50	\$184.79	0.01
Dixon	\$30,500	1.22	\$14.66	\$117.31	\$28,482.00	\$2,018.00	6.62%	0.08	5	1	\$586.54	\$38.81	0.00
<b>Subtotal Goal 1</b>									<b>197</b>		<b>\$32,331.68</b>	<b>\$19,031.98</b>	<b>0.55</b>
Oelkers	\$35,570	1.22	\$17.10	\$136.81	\$17,246.00	\$18,324.00	51.52%	0.63	1	3	\$136.81	\$70.48	0.00
<b>Subtotal Goal 3</b>									<b>1</b>		<b>\$136.81</b>	<b>\$70.48</b>	<b>0.00</b>

Maki	\$52,052	1.22	\$25.02	\$200.20	\$15,675.00	\$36,377.00	69.89%	0.85	2	4	\$400.40	\$279.82	0.01
Chamberlain	\$38,651	1.22	\$18.58	\$148.66	\$14,512.00	\$24,139.00	62.45%	0.76	20	4	\$2,973.15	\$1,856.85	0.06
Lovec	\$49,315	1.22	\$23.71	\$189.67	\$16,844.00	\$32,471.00	65.84%	0.80	3	4	\$569.02	\$374.67	0.01
Angvick	\$41,425	1.22	\$19.92	\$159.33	\$15,538.00	\$25,887.00	62.49%	0.76	10	4	\$1,593.27	\$995.65	0.03
<b>Subtotal Goal 4</b>									<b>35</b>		<b>\$5,535.84</b>	<b>\$3,506.99</b>	<b>0.10</b>
Knowles	\$51,350	1.22	\$24.69	\$197.50	\$23,678.00	\$27,672.00	53.89%	0.66	12	5	\$2,370.00	\$1,277.17	0.03
Dunn	\$44,133	1.22	\$21.22	\$169.74	\$23,678.00	\$20,455.00	46.35%	0.57	6	5	\$1,018.45	\$472.04	0.01
Roos	\$41,743	1.22	\$20.07	\$160.55	\$12,848.00	\$28,895.00	69.22%	0.84	30	5	\$4,816.50	\$3,334.04	0.10
Smith	\$40,912	1.22	\$19.67	\$157.35	\$18,684.00	\$22,228.00	54.33%	0.66	3	5	\$472.06	\$256.48	0.01
Miller	\$33,000	1.22	\$15.87	\$126.92	\$12,421.00	\$20,579.00	62.36%	0.76	12	5	\$1,523.08	\$949.80	0.04
Chamberlain	\$38,651	1.22	\$18.58	\$148.66	\$14,512.00	\$24,139.00	62.45%	0.76	45	5	\$6,689.60	\$4,177.90	0.13
Murphy	\$36,281	1.22	\$17.44	\$139.54	\$24,507.00	\$11,774.00	32.45%	0.40	11	5	\$1,534.97	\$498.13	0.02
Sackman	\$29,000	1.22	\$13.94	\$111.54	\$13,740.00	\$15,260.00	52.62%	0.64	6	5	\$669.23	\$352.15	0.01
Hammer	\$35,718	1.22	\$17.17	\$137.38	\$22,652.00	\$13,066.00	36.58%	0.45	35	5	\$4,808.19	\$1,758.88	0.06
Oelkers	\$35,570	1.22	\$17.10	\$136.81	\$17,246.00	\$18,324.00	51.52%	0.63	30	5	\$4,104.23	\$2,114.31	0.07
Schmelzer	\$35,259	1.22	\$16.95	\$135.61	\$16,096.00	\$19,163.00	54.35%	0.66	20	5	\$2,712.23	\$1,474.08	0.05
Donovan	\$20,068	0.61	\$19.30	\$154.37	\$7,261.00	\$12,807.00	63.82%	0.78	66	5	\$10,188.37	\$6,502.02	0.40
Baker	\$37,032	1.22	\$17.80	\$142.43	\$28,482.00	\$8,550.00	23.09%	0.28	23	5	\$3,275.91	\$756.35	0.02
<b>Subtotal Goal 5</b>									<b>299</b>		<b>\$44,182.82</b>	<b>\$23,923.34</b>	<b>0.95</b>
<b>Total Goals 1,3, 4 and 5</b>									<b>532</b>		<b>\$82,187.15</b>	<b>\$46,532.78</b>	<b>1.61</b>

**U.S. Department of Agriculture**  
**Cooperative State Research, Education and Extension Service**  
**Supplement to the Annual Report of Accomplishments and Results**  
**Multistate Extension Activities and Integrated Activities**  
**(Attach Brief Summaries)**

**Institution:** Montana State University

**State:** Montana

**Check One:**  **Multistate Extension Activities**  
 **Integrated Activities (Hatch Act Funds)**  
 **Integrated Activities (Smith-Lever Act Funds)**

**Actual Expenditures**

Title of Planned Program/Activity	FY 2000	FY 2001	FY 2002	FY 2003	Fy 2004
Ag System Highly Competitive in Global Economy	\$ _____	_____	_____	_____	_____
Ag System Protecting Natural Resources and Environment	\$ _____	_____	_____	_____	_____

Enhanced  
Economic  
Opportunity &  
Quality of Life  
for Americans

\$

**Total**

\$

\_\_\_\_\_  
Director  
\_\_\_\_\_  
3/1/01  
Date

**Form CSREES-REPT (2/00)**

2000  
Integrated  
Research  
Requirement  
Prepared  
by Sandra  
Rahn-  
Gibson

	Total Annual Salary	Total FTE	Total Hourly Rate	Total Daily Rate (8 Hours)	FY 00 County Portion Of Ann Salary	Smith Lever Portion Of Ann Salary	Percentage Smith Lever Ann Salary	Smith Lever Portion Of FTE	2000 Integrated Days	Goal #	Total Integrated Resarch Sal	Smith-Lever Portion Int. Research	Smith-Lever Int. Res. FTE
Maki	\$52,052	1.22	\$25.02	\$200.20	\$15,675.00	\$36,377.00	69.89%	0.85	3	1	\$600.60	\$419.73	0.01
Crouch	\$37,168	1.22	\$17.87	\$142.95	\$23,678.00	\$13,490.00	36.29%	0.44	22	1	\$3,144.98	\$1,141.46	0.04
Wargo	\$46,695	1.22	\$22.45	\$179.60	\$16,282.00	\$30,413.00	65.13%	0.79	13	1	\$2,334.75	\$1,520.65	0.04
Smith	\$40,912	1.22	\$19.67	\$157.35	\$18,684.00	\$22,228.00	54.33%	0.66	28	1	\$4,405.91	\$2,393.78	0.07
Brence	\$40,617	1.22	\$19.53	\$156.22	\$15,241.00	\$25,376.00	62.48%	0.76	4	1	\$624.88	\$390.40	0.01
Phillips	\$60,339	1.22	\$29.01	\$232.07	\$15,838.00	\$44,501.00	73.75%	0.90	60	1	\$13,924.38	\$10,269.46	0.21
Carlstrom	\$42,868	1.22	\$20.61	\$164.88	\$22,162.00	\$20,706.00	48.30%	0.59	30	1	\$4,946.31	\$2,389.15	0.07
Miller	\$33,000	1.22	\$15.87	\$126.92	\$12,421.00	\$20,579.00	62.36%	0.76	2	1	\$253.85	\$158.30	0.01
Crawford	\$31,580	1.22	\$15.18	\$121.46	\$16,434.00	\$15,146.00	47.96%	0.59	26	1	\$3,158.00	\$1,514.60	0.06
Lucas	\$43,785	1.22	\$21.05	\$168.40	\$17,882.00	\$25,903.00	59.16%	0.72	6	1	\$1,010.42	\$597.76	0.02

Moore	\$37,217	1.22	\$17.89	\$143.14	\$14,434.00	\$22,783.00	61.22%	0.75	4	1	\$572.57	\$350.51	0.01
Maata	\$44,300	1.22	\$21.30	\$170.38	\$14,677.00	\$29,623.00	66.87%	0.82	9	1	\$1,533.46	\$1,025.41	0.03
Marks	\$53,408	1.22	\$25.68	\$205.42	\$24,507.00	\$28,901.00	54.11%	0.66	13	1	\$2,670.40	\$1,445.05	0.03
Rumph	\$22,474	0.61	\$21.61	\$172.88	\$7,003.00	\$15,471.00	68.84%	0.84	5	1	\$864.38	\$595.04	0.03
Riley	\$20,740	0.61	\$19.94	\$159.54	\$7,003.00	\$13,737.00	66.23%	0.81	6	1	\$957.23	\$634.02	0.04
Lovec	\$49,315	1.22	\$23.71	\$189.67	\$16,844.00	\$32,471.00	65.84%	0.80	51	1	\$9,673.33	\$6,369.31	0.16
Hill	\$40,984	1.22	\$19.70	\$157.63	\$17,246.00	\$23,738.00	57.92%	0.71	22	1	\$3,467.88	\$2,008.60	0.06
Halpop	\$41,594	1.22	\$20.00	\$159.98	\$16,771.00	\$24,823.00	59.68%	0.73	38	1	\$6,079.12	\$3,627.98	0.11
Angvick	\$41,425	1.22	\$19.92	\$159.33	\$15,538.00	\$25,887.00	62.49%	0.76	90	1	\$14,339.42	\$8,960.88	0.26
King	\$41,283	1.22	\$19.85	\$158.78	\$14,841.00	\$26,442.00	64.05%	0.78	119	1	\$18,894.91	\$12,102.30	0.36
Clark	\$37,370	1.22	\$17.97	\$143.73	\$14,894.00	\$22,476.00	60.14%	0.73	20	1	\$2,874.62	\$1,728.92	0.06
Onstad	\$40,403	1.22	\$19.42	\$155.40	\$17,024.00	\$23,379.00	57.86%	0.71	33	1	\$5,128.07	\$2,967.33	0.09
Koenig	\$38,545	1.22	\$18.53	\$148.25	\$14,522.00	\$24,023.00	62.32%	0.76	6	1	\$889.50	\$554.38	0.02
Dixon	\$30,500	1.22	\$14.66	\$117.31	\$28,482.00	\$2,018.00	6.62%	0.08	11	1	\$1,290.38	\$85.38	0.00
Bertelsen	\$43,474	1.22	\$20.90	\$167.21	\$15,054.00	\$28,420.00	65.37%	0.80	10	1	\$1,672.08	\$1,093.08	0.03
<b>Subtotal</b>													
<b>Goal 1</b>									<b>631</b>		<b>\$105,311.44</b>	<b>\$64,343.49</b>	<b>1.81</b>
Koenig	\$38,545	1.22	\$18.53	\$148.25	\$14,522.00	\$24,023.00	62.32%	0.76	14	4	\$2,075.50	\$1,293.55	0.04
Maki	\$52,052	1.22	\$25.02	\$200.20	\$15,675.00	\$36,377.00	69.89%	0.85	2	4	\$400.40	\$279.82	0.01
Knerr	\$40,041	1.22	\$19.25	\$154.00	\$15,229.00	\$24,812.00	61.97%	0.76	15	4	\$2,310.06	\$1,431.46	0.04
Crouch	\$37,168	1.22	\$17.87	\$142.95	\$23,678.00	\$13,490.00	36.29%	0.44	16	4	\$2,287.26	\$830.15	0.03
Brence	\$40,617	1.22	\$19.53	\$156.22	\$15,241.00	\$25,376.00	62.48%	0.76	5	4	\$781.10	\$488.00	0.01
Phillips	\$60,339	1.22	\$29.01	\$232.07	\$15,838.00	\$44,501.00	73.75%	0.90	3	4	\$696.22	\$513.47	0.01
Crawford	\$31,580	1.22	\$15.18	\$121.46	\$16,434.00	\$15,146.00	47.96%	0.59	6	4	\$728.77	\$349.52	0.01
Lucas	\$43,785	1.22	\$21.05	\$168.40	\$17,882.00	\$25,903.00	59.16%	0.72	25	4	\$4,210.10	\$2,490.67	0.07
Moore	\$37,217	1.22	\$17.89	\$143.14	\$14,434.00	\$22,783.00	61.22%	0.75	3	4	\$429.43	\$262.88	0.01
Maata	\$44,300	1.22	\$21.30	\$170.38	\$14,677.00	\$29,623.00	66.87%	0.82	1	4	\$170.38	\$113.93	0.00
Rumph	\$22,474	0.61	\$21.61	\$172.88	\$7,003.00	\$15,471.00	68.84%	0.84	2	4	\$345.75	\$238.02	0.01
Johnson	\$54,460	1.22	\$26.18	\$209.46	\$22,652.00	\$31,808.00	58.41%	0.71	5	4	\$1,047.31	\$611.69	0.01
Lovec	\$49,315	1.22	\$23.71	\$189.67	\$16,844.00	\$32,471.00	65.84%	0.80	8	4	\$1,517.38	\$999.11	0.02
Hill	\$40,984	1.22	\$19.70	\$157.63	\$17,246.00	\$23,738.00	57.92%	0.71	24	4	\$3,783.14	\$2,191.20	0.07
Angvick	\$41,425	1.22	\$19.92	\$159.33	\$15,538.00	\$25,887.00	62.49%	0.76	10	4	\$1,593.27	\$995.65	0.03
Clark	\$37,370	1.22	\$17.97	\$143.73	\$14,894.00	\$22,476.00	60.14%	0.73	8	4	\$1,149.85	\$691.57	0.02

Onstad	\$40,403	1.22	\$19.42	\$155.40	\$17,024.00	\$23,379.00	57.86%	0.71	3	4	\$466.19	\$269.76	0.01
Dixon	\$30,500	1.22	\$14.66	\$117.31	\$28,482.00	\$2,018.00	6.62%	0.08	4	4	\$469.23	\$31.05	0.00
<b>Subtotal Goal 4</b>									<b>154</b>		<b>\$24,461.33</b>	<b>\$14,081.51</b>	<b>0.42</b>
Maki	\$52,052	1.22	\$25.02	\$200.20	\$15,675.00	\$36,377.00	69.89%	0.85	1	5	\$200.20	\$139.91	0.00
<b>Subtotal Goal 5</b>									<b>1</b>		<b>\$200.20</b>	<b>\$139.91</b>	<b>0.00</b>
<b>Total Goals 1, 4 and 5</b>									<b>786</b>		<b>\$129,972.97</b>	<b>\$78,564.92</b>	<b>2.23</b>